Title (en)

ANTIGEN BINDING PROTEINS TO PROPROTEIN CONVERTASE SUBTILISIN KEXIN TYPE 9 (PCSK9)

Title (de)

ANTIGENBINDENDE PROTEINE GEGEN PROPROTEIN CONVERTASE SUBTILISIN KEXIN TYP 9 (PCSK9)

Title (fr)

PROTÉINES DE LIAISON À UN ANTIGÈNE POUR LA PROPROTÉINE CONVERTASE SUBTILISINE KEXINE DE TYPE 9 (PCSK9)

Publication

EP 2215124 B1 20160224 (EN)

Application

EP 08798550 A 20080822

Priority

- US 8613308 P 20080804
- US 95766807 P 20070823
- US 2008074097 W 20080822
- US 1063008 P 20080109
- US 896507 P 20071221

Abstract (en)

[origin: WO2009026558A1] Antigen binding proteins that interact with Proprotein Convertase Subtilisin Kexin Type 9 (PCSK9) are described. Methods of treating hypercholesterolemia and other disorders by administering a pharmaceutically effective amount of an antigen binding protein to PCSK9 are described. Methods of detecting the amount of PCSK9 in a sample using an antigen binding protein to PCSK9 are described.

IPC 8 full level

C07K 16/40 (2006.01); **A61K 31/22** (2006.01); **A61K 31/366** (2006.01); **A61K 31/40** (2006.01); **A61K 31/405** (2006.01); **A61K 31/44** (2006.01); **A61K 31/47** (2006.01); **A61K 31/505** (2006.01); **A61K 31/66** (2006.01); **A61K 39/00** (2006.01); **A61K 39/395** (2006.01); **A61K 45/06** (2006.01); **A61P 3/06** (2006.01); **C12N 15/113** (2010.01)

CPC (source: EA EP IL KR US)

A61K 31/22 (2013.01 - EA EP IL US); **A61K 31/366** (2013.01 - EA EP IL US); **A61K 31/40** (2013.01 - EA EP IL US); **A61K 31/405** (2013.01 - EA EP IL US); **A61K 31/44** (2013.01 - EA EP IL US); **A61K 31/47** (2013.01 - EA EP IL US); **A61K 31/505** (2013.01 - EA EP IL US); **A61K 31/66** (2013.01 - EA EP IL US); **A61K 39/395** (2013.01 - EA EP IL US); **A61K 39/3955** (2013.01 - EA EP IL US); **A61K 45/06** (2013.01 - EA EP IL US); **A61P 3/00** (2018.01 - EP IL); **A61P 3/06** (2018.01 - EP IL KR); **A61P 7/00** (2018.01 - EP IL); **A61P 9/00** (2018.01 - EP IL); **A61P 9/10** (2018.01 - EP IL); **A61P 25/28** (2018.01 - EP IL); **A61P 43/00** (2018.01 - EP IL); **C07K 16/40** (2013.01 - EA EP IL KR US); **C12N 15/1137** (2013.01 - EA IL US); A61K 2039/505 (2013.01 - EA EP IL KR US); A61K 2300/00 (2013.01 - IL); C07K 2299/00 (2013.01 - EA EP IL US); C07K 2317/14 (2013.01 - EA IL US); C07K 2317/24 (2013.01 - KR); C07K 2317/34 (2013.01 - EA EP IL US); C07K 2317/76 (2013.01 - EA EP IL US); C07K 2317/92 (2013.01 - EA EP IL KR US)

C-Set (source: EP US)

1. **A61K 31/22** + **A61K 2300/00**
2. **A61K 31/366** + **A61K 2300/00**
3. **A61K 31/40** + **A61K 2300/00**
4. **A61K 31/405** + **A61K 2300/00**
5. **A61K 31/44** + **A61K 2300/00**
6. **A61K 31/47** + **A61K 2300/00**
7. **A61K 31/505** + **A61K 2300/00**
8. **A61K 31/66** + **A61K 2300/00**
9. **A61K 39/395** + **A61K 2300/00**
10. **A61K 39/3955** + **A61K 2300/00**

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Citation (opposition)

Opponent : Eli Lilly and Company

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- US 1063008 P 20080109

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- US 8613309 P
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- ANALYSIS OF THE FEATURES OF CLAIM 1
- ENLARGED VERSION OF FIG. 1 DEPICTING THE NON-LINEAR EPITOPE COMPRISING AMINO ACIDS, pages 187 - 202, 231-246 , and 368-383
- ENLARGED VERSION OF FIG. 2 DEPICTING THE OVERLAP BETWEEN THE AMINO ACID RESIDUES THAT ARE BOUND BY PREFERRED PCSK9-SPECIFIC ANTIBODIES DISCLOSED IN NOVARTIS (D14
- ENLARGED VERSION OF FIG. 3 DEPICTING THE OVERLAP BETWEEN THE AMINO ACID RESIDUES THAT ARE BOUND BY ANTIBODIES DISCLOSED IN NOVARTIS (D14) AND THE RESIDUES POSITIONED WITHIN 8 ANGSTROMS OF 31H4
- ENLARGED VERSION OF FIG. 4 DEPICTING THE AMINO ACID RESIDUES TAUGHT IN PB TO BE BOUND BY THE EGFA DOMAIN OF THE LDL RECEPTOR
- ENLARGED VERSION OF FIG. 5 DEPICTING THE OVERLAP BETWEEN THE AMINO ACID RESIDUES THAT ARE BOUND BY PREFERRED PCSK9-SPECIFIC ANTIBODIES DISCLOSED IN NOVARTIS (D14
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- DECLARATION OF DR DARREN KAMIKURA AND CV
- DECLARATION OF DR MALGORZATA GONCIARZ AND CV
- ILLUSTRATION OF 31H4 BINDING TO HPCSK9

Opponent : REGENERON PHARMACEUTICALS, INC.

- WO 2008063382 A2 20080529 - MERCK & CO INC [US], et al
- WO 2008057458 A2 20080515 - MERCK & CO INC [US], et al
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- ANALYSIS OF THE FEATURES OF CLAIM 1
- ENLARGED VERSION OF FIG. 1 DEPICTING THE NON-LINEAR EPITOPE COMPRISING AMINO ACIDS 187- 202 , 231-246 , AND 368-383 OF PCSK9 BOUND BY PREFERRED PCSK9-SPECIFIC ANTIBODIES DISCLOSED IN NOVARTIS (D14
- ENLARGED VERSION OF FIG. 2 DEPICTING THE OVERLAP BETWEEN THE AMINO ACID RESIDUES THAT ARE BOUND BY PREFERRED PCSK9-SPECIFIC ANTIBODIES DISCLOSED IN NOVARTIS (D14
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Opponent : Sanofi-Aventis Deutschland GmbH et al.

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